FINAL EXAM
DECEMBER 2019

 NATIONAL BOARD OF EXAMINATIONS

EMERGENCY MEDICINE

PAPER-I

Time: 3 hours
Max. Marks:100

EM/D/19/52/I

Important Instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. a) Pathophysiology of hemorrhagic shock in trauma. 4+2+2+2
   b) Permissive hypotension – indications and contraindications.
   c) Classification of hemorrhagic shock in trauma.
   d) ABC score for massive transfusion protocol.

2. a) Pathophysiology of sepsis and septic shock. 4+3+3
   b) Various scoring systems for early identification of sepsis in emergency.
   c) Pathway of lactate production and its significance for emergency physician.

3. a) Mechanisms of blood flow during CPR. 3+3+4
   b) Resuscitative thoracotomy.
   c) Therapeutic hypothermia.

4. a) Draw a well- labelled diagram of circle of Willis. 4+3+3
   b) Describe Monro-Kellie doctrine and autoregulation.
   c) Enumerate the anatomical and physiological risk factors of acute ischemic stroke.

5. a) Draw the anatomy of ankle joint. Describe the assessment of Lisfranc injury. 4+3+3
   b) Discuss the anatomy of shoulder joint. Describe the various types of shoulder dislocation.
   c) Describe the assessment of scaphoid lunate dislocation.

6. a) Describe the pathophysiology of fever in pediatrics and elderly population. 4+2+4
   b) Antipyretics and analgesics used in ED.
   c) Elaborate on the pathophysiology of hypothermia. Enumerate the causes of hypothermia in adults.

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7. a) Describe pathophysiology of ARDS in dengue and malaria. 4+3+3
   b) Enumerate the steps of Drug assisted intubation for trauma victim.
   c) High Flow oxygen therapy – indications, contraindications and proven benefits.

8. a) Describe various clinical decision making rules for management and disposition of Low-risk chest pain. 4+4+2
   b) Describe the anatomy of coronary circulation.
   c) Draw Einthoven's Triangle.

9. a) Enumerate the causes and diagnostic algorithm of hypernatremia. 4+3+3
   b) Describe the approach to diagnosis of mixed acid base disorder from ABG analysis.
   c) Describe the physiology and pathophysiology of Potassium homeostasis.

10. a) Describe pulse-echo principle. 2+2+4+2
    b) Describe ALARA principle.
    c) Discuss the role of Lung Ultrasound in diagnosis of critical clinical conditions. Enumerate the artifacts observed.
    d) Describe utility of low frequency probes during resuscitation.

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